spectrum if too many NGSO MSS systems beat GSO/FSS systems in a "'race to the recorder's office.'"[46/]

These concerns are completely unwarranted. As previously noted, sharing between NGSO MSS feeder link systems and GSO/FSS systems is feasible and practicable. In addition, only two NGSO MSS systems would be allowed to use the band, and the GSO/FSS systems would enjoy the benefit of the sharing rules adopted by the Commission. Finally, the true concern of every operator is the provision of commercially viable service to users on reasonable terms and conditions, and not with being first to market.

D. Teledesic's Proposal To Allocate The 18.30-18.55 GHz Band Solely For Possible NGSO/FSS Use Is Outweighed By The Benefits Of Using That Band For GSO/FSS Downlinks.

TRW supports the Commission's proposal to specify the 18.30-18.55 GHz band for the downlink operations of GSO/FSS systems operating uplinks at 29.25-29.50 GHz. TRW noted that the 18.30-18.55 GHz band would be freed up because it would not be used by LMDS systems operating in the spectrum conventionally paired with this band.[47/] In addition, the 19.45-19.7 GHz spectrum conventionally paired with satellite uplinks at 29.25-29.50 GHz could be allocated as a portion of the spectrum used for downlinks of the two licensed NGSO MSS systems now seeking to operate uplinks in the 28 GHz band, as well as at least one additional NGSO MSS system's

---

46/ Id., at 16-17. Accord, Comments of GE Americom at 4, 9-10.

47/ Comments of TRW at 28-29.

feeder link uplinks on a "reverse band" basis.[48/] Thus, by locating the GSO/FSS downlinks at 18.30-18.55 GHz, GSO/FSS systems operating uplinks at 29.25-29.5 GHz would avoid the substantial constraints that would be required to prevent interference in the already congested 19.45-19.7 GHz band.[49/] Hughes also advocates the allocation of GSO/FSS downlinks in the 18 GHz band, since the use of GSO/FSS downlink spectrum by even a single NGSO MSS feeder link system's uplinks "would preclude nearby GSO/FSS operations."[50/]

Despite the substantial benefits of allocating the 18.30-18.55 GHz band for GSO/FSS downlinks, Teledesic proposes that the 18.3-18.55 GHz band be allocated solely as a portion of the paired spectrum for possible NGSO/FSS gateways and gigalink terminals operating on a secondary basis in the 27.5-28.35 GHz band.[51/] Under Teledesic's proposal, GSO/FSS downlinks would not share the 18.3-18.55 GHz band because there would be unspecified "difficulties" in such sharing.[52/] Instead, GSO/FSS downlinks would share the 19.3-19.7 GHz band with NGSO MSS feeder links.[53/]

48/ Third NPRM, FCC 95-287, slip op. at ¶ 65.

49/ Comments of TRW at 28-29.

50/ Comments of Hughes at 21.

51/ Comments of Teledesic at 7.

52/ Id.

53/ Id., at 8.

Essentially, the so-called "difficulties" in sharing by GSO/FSS and NGSO/FSS downlinks that Teledesic postulates would result in an exclusive allocation to the NGSO/FSS of 500 MHz of 28 GHz band spectrum and 750 MHz of 19 GHz band spectrum. Teledesic, however, offers absolutely no explanation or technical support for its contention that GSO/FSS could not share downlink spectrum with NGSO/FSS gateway and gigalink terminal downlinks. Absent such support, Teledesic's proposal is nothing more than a "spectrum grab" in utter disregard of the interests of other services. The Commission should reject Teledesic's proposal, and allocate the 18.30-18.55 GHz band for GSO/FSS downlinks in lieu of the soon-to-be heavily congested 19.45-19.7 GHz band.

III. THE COMMISSION SHOULD REDUCE THE SHARING BURDEN ON THE LMDS ONLY TO THE EXTENT PROPOSED BY TRW.

While the Commission proposed that the LMDS share the full 150 MHz at 29.1-29.25 GHz with eight NGSO MSS feeder link earth station complexes, TRW's suggested revision would only require the LMDS to share 50 MHz (at 29.2-29.25 GHz) with eight feeder link earth station complexes.[54/] The other 100 MHz (at 29.1-29.2 GHz) would be shared with the six feeder link earth station complexes of a single NGSO MSS licensee.[55/] Moreover, the two NGSO MSS feeder link earth

---

54/ Third NPRM, FCC 95-287, slip op. at ¶ 60; Comments of TRW at 21.

55/ Comments of TRW at n.31 & 20-21. Under current proposals, both Motorola and TRW would operate NGSO MSS feeder links at 29.2-29.25 GHz; only Motorola would operate NGSO MSS feeder links at 29.1-29.2 GHz.

station complexes of the "second" NGSO MSS system can be located in medium or smaller markets at or near the coast so that a substantial portion of the protection zone proposed by the Commission[56/] would fall over the ocean, thereby reducing further the already modest sharing burden by the LMDS.[57/] TRW also did not oppose the Commission's proposal to accommodate LMDS subscriber transmissions in the shared sub-band by imposing a minimum elevation angle of seven or eight degrees upon the NGSO MSS feeder link systems using the 28 GHz band.[58/]

Despite its efforts to support some relaxation of the already modest burdens of sharing that are imposed on the LMDS at 29.1-29.25 GHz under the Third NPRM, TRW cannot support the suggestions of a number of LMDS proponents that are intended to further reduce these burdens by imposing substantial additional constraints on the operation of NGSO MSS feeder link systems in the shared band.[59/] The

---

56/ Third NPRM, FCC 95-287, slip op. at ¶ 60.

57/ Comments of TRW at 27. In the study submitted with its Comments, TRW demonstrated that such a technique is possible for MEO NGSO MSS systems. Id., at Attachment 4.

58/ Third NPRM, FCC 95-287, slip op. at ¶ 63; Comments of TRW at 17, 21-22.

59/ See, e.g., Comments of Texas Instruments at 7-8, 12-13 (NGSO MSS feeder link antennas should have a minimum elevation angle of 10 degrees and at least 45 dB sidelobes, NGSO MSS satellites should use higher gain, narrower beam (smaller footprint) antennas and/or spot beam antennas for reception, and NGSO MSS feeder link systems should use power control to facilitate their operation to maintain both C/N and C/I ratios); Comments of Comtech Associates, Inc. at 3 (NGSO MSS feeder link systems should operate at a minimum elevation angle of 12 to 15 degrees); Comments of Endgate Corp. at 3 (the Commission should consider increasing the NGSO MSS feeder link

(continued...)

sharing scenario envisioned by the Commission and TRW is derived from extensive analysis by satellite and LMDS members of the LMDS/FSS 28 GHz Band Negotiated Rulemaking Committee ("NRMC") and reflects an equitable distribution of burdens upon both services.[60/] Under this scenario the NGSO MSS would be subject to substantial limits in the 28 GHz band on the number of NGSO MSS feeder link systems that can operate in the band, the number and location of feeder link earth station complexes, and the amount of spectrum allocated for NGSO MSS feeder link use.[61/] The specific suggestions by the LMDS proponents would require design changes to the NGSO MSS licensees seeking 28 GHz band spectrum that may not be possible, and at best would be extremely costly in terms of money and time. To impose such costs on the NGSO MSS licensees would be unfair, since the Commission's proposal would already burden the NGSO MSS and provide the LMDS

59/(...continued)
elevation angle to 10 degrees or higher); Comments of Nortel at 9-10 (the proposed EIRP limit on LMDS systems in the 29.1-29.25 GHz band should be increased).

60/ See, e.g., Third NPRM, FCC 95-287, slip op. at ¶ 123 (recognizing that the proposed EIRP values for the shared sub-band are based on analyses conducted in the NRMC). See also Joint Views and Proposed Rules for LMDS/Non-GSO MSS Feeder Link Sharing Submitted by Constellation Communications, Inc., Loral QUALCOMM Partnership, L.P., Mobile Communications Holdings, Inc. and TRW Inc., NRMC Report at Addendum at 9 (Sept. 23, 1994); Views of NRMC Members Supporting Motorola-Suite 12/CVNY Rule Proposal in the Form of Their Version of Section VI To Report of Working Group 2, NRMC Report at Addendum (Sept. 23, 1994).

61/ NGSO MSS feeder link systems also would be subject to the burdens of sharing spectrum with each other and with GSO/FSS systems.

with substantially unfettered use of the 28 GHz band, and because NGSO MSS licensees are at a much later stage in the licensing and development process than the LMDS.[62/]

The Commission's proposal and TRW's suggested revisions thereto would subject the LMDS to only modest limitations in just 150 of the 1000 MHz allocated for LMDS, and in only limited geographic locations primarily outside of the largest metropolitan areas. The Commission should reject out-of-hand the suggestions by LMDS proponents to further reduce this burden by substantially or prohibitively increasing the cost of operating already licensed NGSO MSS systems in the 28 GHz band. If the Commission wishes to expand the already generous allocation to the LMDS, it should consider sharing between FSS and LMDS systems or relocating the LMDS to the 40 GHz band.[63/]

IV. THE COMMISSION'S PROPOSAL TO ACCOMMODATE THE 28 GHZ BAND REQUIREMENTS OF POINT-TO-POINT SERVICE OPERATORS UNDER THE LMDS UMBRELLA IS NEITHER ARBITRARY NOR CAPRICIOUS.

The Commission's band segmentation plan proposes that terrestrial point-to-point service operators access the 28 GHz band by acquiring licenses for the spectrum

---

62/ Only one LMDS user has actually filed applications, and at least one commenter is urging the Commission not to grant LMDS licenses because no equipment now exists for the service. See Comments of M3, at 2. See also Comments of Nortel at ii, 3, 8 (noting the early developmental stage of LMDS and the advent of digital LMDS systems).

63/ See n. 11, supra.

allocated for LMDS or acquiring smaller units of LMDS spectrum through geographic partitioning, spectrum disaggregation, and leasing of spectrum from LMDS operators.[64/] Several terrestrial point-to-point service proponents oppose this proposal because it does not guarantee as much spectrum in the 28 GHz band as they would like for the terrestrial point-to-point service.[65/] These proponents contend that the Commission based its band segmentation proposal on a mistaken belief that there is no demand for terrestrial point-to-point service in the 28 GHz band and a failure to understand and fully consider the possibility of the terrestrial point-to-point service sharing the 28 GHz band with the LMDS and satellite services.[66/]

Specifically, TIA contends the Commission did not adequately consider the potential demand for terrestrial point-to-point service and thus mistakenly based its proposal "substantially on the ground that this band has lain fallow and no demand for fixed microwave services on the band has been shown."[67/] This contention is clearly contradicted by the Third NPRM. Nowhere in the Third NPRM does the

---

64/ Third NPRM, FCC 95-287, slip op. at ¶ 53.

65/ See Comments of Telephone and Data Systems, Inc.; Comments of Digital Microwave Corp. ("Digital"); Comments of Harris Corp.-Farinon Division ("Harris"); Comments of Alcatel Network Systems, Inc.; Comments of the Fixed Point-to-Point Communications Section, Network Equipment Division of the Telecommunications Industry Association ("TIA").

66/ See, e.g., Comments of TIA. Each terrestrial point-to-point service proponent's comments in response to the Third NPRM merely repeats aspects of or fully adopts the comments of TIA. Thus, TRW only specifically addresses TIA's comments in this section of its reply comments.

67/ Comments of TIA at 9-10.

Commission doubt that a demand exists for point-to-point microwave service in the 28 GHz band. To the contrary, the Commission recognizes a demand for terrestrial point-to-point service in the Third NPRM when it discusses a request by Harris and Digital "to dedicate part or all of the 28 GHz band solely to point-to-point services," and proposes instead that the terrestrial point-to-point service utilize the spectrum in the 28 GHz band allocated for LMDS.[68/]

Notwithstanding its recognition of a demand for terrestrial point-to-point service in the 28 GHz band, the Commission properly determined that the public interest in a separate allocation for point-to-point terrestrial services in the 28 GHz band is outweighed by the public interest in providing LMDS in the portion of the band dedicated to terrestrial services.[69/] The Commission has found on numerous occasions that the public interest favored the allocation of spectrum to services other than the fixed microwave service, even where it explicitly recognized substantial public interest concerns in favor of permitting the fixed microwave service to make use of the same spectrum.[70/] The Commission has often justified these

---

68/ Third NPRM, FCC 95-287 at ¶¶ 51-53.

69/ Id., at ¶¶ 51-53. The Commission based its decision on the grounds that LMDS offers a "myriad" of services including "innovative new services," some spectrum already has been allocated to point-to-point services, additional spectrum for terrestrial point-to-point service may be allocated in the future, and terrestrial point-to-point service proponents have not demonstrated that the public interest in terrestrial point-to-point service is greater than the public interest in LMDS. See Id.

70/ See, e.g., Redevelopment of Spectrum to Encourage Innovation in the Use of

(continued...)

determinations in part by noting -- as it has in the instant proceeding -- that sufficient spectrum was or would be made available for the fixed microwave service in other bands.[71/] As TIA readily concedes that the interest of the fixed microwave service in the 28 GHz band does not outweigh that of other services seeking an allocation in the band,[72/] and as other bands are plainly available to the fixed microwave service, the Commission has every reason to conclude that the public interest favors an allocation of the 28 GHz band to other services that have urgent need of spectrum.

TIA also challenges the Commission's proposal on the ground that the NRMC Report did not adequately address the concerns of the terrestrial point-to-point service industry and the Third NPRM does not refer to the submissions to the NRMC made

70/(...continued)

New Telecommunications Technologies, 7 FCC Rcd 6886, 6888-6890 (finding that the public interest would best be served by making spectrum in the 2 GHz band available for emerging technologies and relocating fixed microwave users to higher frequency bands, even though "throughout this proceeding we have recognized the important and essential functions, such as public safety and utility management communications, that 2 GHz fixed microwave operations now provide") ("New Telecommunications Technologies"), modified, 8 FCC Rcd 6589, recon. granted in part, 9 FCC Rcd 1943 (1994); Inquiry Into the Development of Regulatory policy In Regard to Direct Broadcast Satellites for the Period Following the 1983 Regional Administrative Radio Conference, 90 F.C.C.2d 676, 697 (1982) ("DBS Inquiry") (authorizing DBS to use the 12.2-12.7 GHz band on an experimental basis even while recognizing "that the concerns of the present operational-fixed microwave users deserve serious attention").

71/ See New Telecommunications Technologies, 7 FCC Rcd at 6888-6890; DBS Inquiry, 90 F.C.C.2d at 697.

72/ Comments of TIA at 12.

by the terrestrial fixed microwave service representative on the NRMC.[73/] However, TIA acknowledges that the Commission was apprised of the concerns of the terrestrial point-to-point service industry on several occasions throughout this proceeding, by the inclusion in the NRMC Report of two statements by Harris and Digital, the NRMC Report's referral to yet another statement issued by the joint representative of Harris and Digital, correspondence from TIA to the Commission, a petition for rule making by Harris, a joint petition for rule making by Harris and Digital, and comments and reply comments by Digital in response to the first NPRM in this proceeding.[74/] The mere fact that the Third NPRM specifically refers to only some of these documents does not mean that the others were ignored by the Commission. Moreover, none of the foregoing documents contradict the rationale for the Commission's proposal.

In sum, it is neither arbitrary nor capricious for the Commission to propose to accommodate LMDS and satellite services in the 28 GHz band and not provide the terrestrial point-to-point service industry with as much 28 GHz band spectrum as it would like. The terrestrial point-to-point service proponents' attempt to mischaracterize the Commission's grounds for its proposal, challenge the Commission's understanding of the relatively straightforward position of the terrestrial point-to-point service industry, and question the adequacy of the Commission's review

---

[73/] Id., at 7-9.

[74/] Id., at 4-8 & Exhibits B, C, & D thereto. The Commission is not compelled to institute a rulemaking proceeding every time a petition for rule making is filed. WWHT, Inc. v. FCC, 656 F.2d 807 (D.C Cir. 1981).

of the terrestrial point-to-point service industry's submissions are in no way a valid basis for the Commission to reconsider its proposal.

V. NGSO MSS FEEDER LINK SPECTRUM SHOULD NOT BE ASSIGNED BY AUCTION, REGARDLESS OF WHETHER GSO/FSS SPECTRUM IS ASSIGNED BY AUCTION.

TRW strongly supports the Commission's tentative determination that auctioning NGSO MSS feeder link spectrum would not serve the public interest.[75/] No commenter challenged the Commission's position that such auctions would significantly delay the development and rapid deployment of NGSO MSS systems and impose significant administrative costs on licensees, or took issue with its determination that it is "unclear whether competitive bidding for intermediate links would recover for the public a significant portion of the value of the spectrum, prevent unjust enrichment or promote efficient and intensive use of the spectrum."[76/]

TRW pointed out in its Comments numerous other reasons why auctioning NGSO MSS feeder link spectrum is inappropriate, including: (1) the absence of mutual exclusivity among the two NGSO MSS feeder link users that would be accommodated under the band segmentation plan; (2) the inequity that would result from auctioning the 28 GHz band NGSO MSS feeder link assignments, since not all

---

75/ Third NPRM, FCC 95-287, slip op. at ¶¶ 146-147.

76/ Id., at ¶ 146. Accord, Implementation of Section 309(j) of the Communications Act, 9 FCC Rcd 2348, 2355-56 (¶¶ 41-43) (1994).

NGSO MSS systems may be assigned feeder link spectrum in bands that are subject to competitive bidding; (3) the prohibitive repercussions that NGSO MSS systems could face abroad in response to U.S. auctions of NGSO MSS spectrum; (4) the inequitable costs auctions would impose on NGSO MSS licensees who have already expended years of work and millions of dollars to help establish the "Big LEO" service and its corresponding rules; and (5) the conditional authorization NGSO MSS licensees already have received to establish feeder links in the 28 GHz and 19 GHz bands.[77/]

Hughes, although it too opposes auctions, contends that because NGSO MSS feeder links are encompassed within the international allocation for FSS, "there is no basis under the Communications Act to exempt MSS feeder link applicants from the potential for competitive bidding to which FSS GSO applicants may be subject."[78/] The Hughes argument is plainly incorrect.

NGSO MSS systems are designed and will operate differently from GSO/FSS systems, and are geared to providing different services than GSO/FSS systems.[79/]

77/ Comments of TRW at 2-3, 31-33. The Commission's reasons, as well as the additional reasons articulated by TRW, clearly negate Texas Instruments' wholly unsupported opinion that if the "spectrum used for MSS feeder links in the 29.1 GHz to 29.25 GHz spectrum can not (sic) be co-shared with LMDS systems, hubs and CPEs, then it is recommended that this spectrum should also be included for competitive bidding." Comments of Texas Instruments at 25.

78/ Comments of Hughes at 45-46 (citing Amendment of § 2.106 of the Commission's Rules to Upgrade to Primary Status the Secondary Mobile-Satellite Service Allocation at 19.7-20.2 GHz and 29.5-30.0 GHz, 9 FCC Rcd 3403, 3404 (1994) ("MSS Upgrade Order")).

79/ See Third NPRM, FCC 95-287, slip op. at ¶¶ 19-22, 25.

Thus, pursuant to its authority under the Communications Act of 1934 to classify radio services,[80] the Commission has properly determined that the NGSO MSS and the GSO/FSS are to be treated differently for regulatory purposes.[81] The two services also will use the spectrum at issue for entirely different purposes. GSO/FSS systems are expected to use the spectrum to serve end users, while NGSO MSS systems will use the spectrum to transmit intermediate links. It is well established that the Commission may allocate spectrum for one service in a way that limits or entirely precludes use of the same spectrum by other services.[82]

80/ Section 303 of the Communications Act authorizes the Commission to, among other things, classify radio stations, prescribe the nature of the service to be rendered by each class of licensed station and each station within a class, assign frequencies to the various classes and individual stations within each class, make regulations to prevent interference between stations and prescribe licensing qualifications for station operators. 47 U.S.C. §§ 303 (a), (b), (c), (f) & (l) (1995). Licensees of NGSO MSS and GSO/FSS systems are manifestly operators of "radio stations" for purposes of this section. See also Aeronautical Radio, Inc. v. F.C.C., 928 F.2d 428, 441 (D.C. Cir. 1991) ("[t]he Commission has the clear statutory authority to determine the nature of the services to be provided under particular classes of licenses"), review dismissed, 983 F.2d 275 (D.C. Cir. 1993).

81/ The Commission's separate classification of NGSO MSS and GSO/FSS is exemplified by their separate treatment in the Third NPRM and by Sections 25.140 and 25.143 of the Commission's rules, respectively governing FSS and NGSO MSS. These rules were designed pursuant to the Commission's policy to implement "qualification requirements for each satellite service that reflect the nature of and entry opportunities for the particular service . . . ." Big LEO Report and Order, 9 FCC Rcd at 5944 (¶ 11).

82/ See Aeronautical Radio, Inc., 928 F.2d at 438-39 (Commission rejected an application to provide only AMSS(R) as incompatible with the Commission's allocation of the spectrum).

The separate classifications for NGSO MSS and FSS, their separate uses of the spectrum at issue, and the numerous practical and policy reasons why an auction of NGSO MSS feeder links is not in the public interest require the rejection of Hughes's inflammatory contention that NGSO MSS and GSO/FSS should be treated the same with respect to competitive bidding. Hughes offers nothing to justify its contention except a vague and misleading reference to the MSS Upgrade Order.[83/] In that decision, the Commission merely noted that NGSO MSS "[f]eeder links are considered to be a FSS operation" and that the international allocation for "FSS includes feeder links for the space telecommunication services."[84/] The Commission was only recognizing that, due to their fixed character, NGSO MSS feeder links are a permissible use of the spectrum allocated internationally for FSS. Nowhere does the MSS Upgrade Order state that NGSO MSS and GSO/FSS are the same service or that systems within each service should be subject to the same licensing or spectrum assignment regulations.[85/] Clearly, the Commission should reject Hughes's unfounded remarks about competitive bidding for NGSO MSS feeder links, regardless of how GSO/FSS licenses for the spectrum are assigned.[86/]

83/ Comments of Hughes at 45.

84/ MSS Upgrade Order, 9 FCC Rcd at 3404 (n.17 & ¶ 13).

85/ See Aeronautical Radio, Inc., 928 F.2d at 442-443 (an international allocation for AMSS(R) which includes air passenger communications ("APC") does not require the Commission to include APC and AMSS(R) in the same class).

86/ Nevertheless, to allay Hughes's concern that the band segmentation plan could preclude GSO/FSS entirely from the 29.25-29.50 GHz band, TRW reiterates its

(continued...)

VI. THE COMMISSION SHOULD NOT ACT PRECIPITOUSLY IN ALLOCATING PRECIOUS SPECTRUM FOR THE NGSO/FSS.

Of all the varying interests vying for access to the 28 GHz band, perhaps the most extraneous to an appropriate public interest determination today regarding how to divide the available spectrum is the NGSO/FSS application of Teledesic. Seeking the allocation of a whopping 500 MHz of uplink and 750 MHz of downlink spectrum on an exclusive basis, Teledesic has mounted a vigorous campaign to convince the Commission that the implementation of its $9 billion, 840-satellite system is a near-term feasibility.

It is apparent that no one other than Teledesic believes that a NGSO/FSS broadband system with anywhere close to that number of satellites is operationally achievable. Several well-known and established companies have now filed applications for GSO/FSS broadband systems to operate in the Ka-band: Loral, PanAmSat, Lockheed-Martin, Motorola, GE Americom, Echostar, Hughes and AT&T. None has proposed to utilize low Earth orbiting satellites to provide broadband services of the type described in the Teledesic application.[87/] Indeed,

---

[86/](...continued)
support for a limit of two NGSO MSS systems to be licensed to operate feeder links in the band.

[87/] Low Earth (and medium Earth) orbit technology, however, is entirely practical for mobile voice communications, as is evidenced by the numerous system applications filed for the MSS Above 1 GHz by Motorola, Loral/Qualcomm, TRW, MCHI Holdings (formerly Ellipsat) and Constellation Communications.

AT&T, an indirect 24% owner of Teledesic[88/] -- by filing its own GSO/FSS broadband system proposal -- has apparently now disavowed the LEO approach which is the foundation of the Teledesic application.

The Commission should consider very carefully all of the ramifications of its actions before it proceeds to allocate 1,250 MHz (500 MHz in the 28 GHz band and 750 MHz in the 19 GHz band) of valuable and hotly-desired spectrum to a single system whose technical concept no other satellite company has endorsed and one of whose major shareholders has now filed an essentially competing application for an entirely different system.[89/] The mere fact that an application has been filed does not require the Commission to conclude that the grant thereof is consistent with the public interest, or that other uses of spectrum in the 28 GHz and 19 GHz bands would not, on balance, be more appropriate candidates for allocations in this proceeding.

88/ AT&T owns 100% of the stock of McCaw Cellular Communications, Inc. which, in turn, owns 100% of the stock of McCaw Development, Inc., the owner of 23.8% of the voting equity of Teledesic. See Amendment of Application of Teledesic Corporation, File No. 22-DSS-P/LA-94, December 30, 1994, at pp. 8-9.

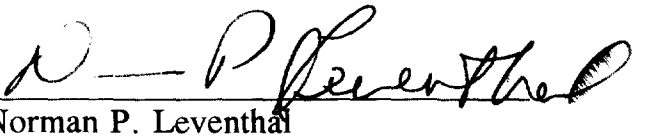
89/ In view of the fact that TRW Inc. is not a "service" applicant for spectrum in the 28 GHz band, it did not file a petition to deny the Teledesic application. The AT&T VoiceSpan system proposal, however, suggests that a company previously reported to be a major participant in the Teledesic project no longer believes in its feasibility (if it ever did)

CONCLUSION

TRW respectfully urges the Commission to fine-tune its proposed segmentation plan by adopting the minor clarifications and revisions proposed by TRW to facilitate co-frequency sharing between NGSO MSS feeder links and LMDS and GSO/FSS. Unlike the predominantly self-serving views expressed by other parties, the minor adjustments offered by TRW would ensure that the 28 GHz band accommodates each service category with only modest constraints that are to be equitably distributed among each system. Although the plan would not match the exact requests of each party, it would facilitate commercial competition among NGSO MSS systems, maximize the number and variety of systems implemented in the near term, and minimize unnecessary cost and delay.

Respectfully submitted,

TRW INC.

By: 

Norman P. Leventhal
Raul R. Rodriguez
Stephen D. Baruch
Bernard A. Solnik
Walter P. Jacob

Leventhal, Senter & Lerman
2000 K Street, N.W.
Suite 600
Washington, DC 20006-1806
(202) 429-8970

October 10, 1995

Its Attorneys

TECHNICAL CERTIFICATE

The undersigned hereby certifies under penalty of perjury that I am the technically qualified person responsible for the preparation of the technical material in the foregoing Reply Comments of TRW Inc., and that such material is complete and accurate to the best of my knowledge and belief.

Raul D. Rey
Regulatory Affairs Manager
Odyssey™ Services Organization
TRW Inc.

Dated: October 10, 1995

CERTIFICATE OF SERVICE

I, Cristina M. Lirag, hereby certify that a true and correct copy of the foregoing "Reply Comments of TRW Inc." was mailed. first-class postage prepaid, this 10th day of October, 1995, to the following:

*Chairman Reed Hundt
Federal Communications Commission
1919 M Street, N.W.
Room 814
Washington, DC 20554

*Commissioner James H. Quello
Federal Communications Commission
1919 M Street, N.W.
Room 802
Washington, DC 20554

*Commissioner Andrew C. Barrett
Federal Communications Commission
1919 M Street, N.W.
Room 826
Washington, DC 20554

*Commissioner Susan Ness
Federal Communications Commission
1919 M Street, N.W.
Room 832
Washington, DC 20554

*Commissioner Rachelle B. Chong
Federal Communications Commission
1919 M Street, N.W.
Room 844
Washington, DC 20554

*By Hand Delivery

*Scott B. Harris, Esq.
Chief, International Bureau
Federal Communications Commission
2000 M Street, N.W.
Room 830
Washington, DC 20554

*James L. Ball
Associate Bureau Chief for Policy
International Bureau
Federal Communications Commission
2000 M Street, N.W.
Room 820
Washington, DC 20554

*Thomas S. Tycz
Chief, Satellite &
Radiocommunication Division
International Bureau
Federal Communications Commission
2000 M Street, N.W.
Room 811
Washington, DC 20554

*Cecily C. Holiday, Esq.
Deputy Chief, Satellite &
Radiocommunication Division
International Bureau
Federal Communications Commission
2000 M Street, N.W
Room 520
Washington, DC 20554

*Fern J. Jarmulnek, Esq.
Chief, Satellite Policy Branch
International Bureau
Federal Communications Commission
2000 M Street, N.W
Room 518
Washington, DC 20554

*By Hand Delivery

*Donna L. Bethea, Esq.
International Bureau
Federal Communications Commission
2000 M Street, N.W.
Room 515
Washington, DC 20554

*Jennifer Gilsenan, Esq.
International Bureau
Federal Communications Commission
2000 M Street, N.W.
Room 511
Washington, DC 20554

*Donald Gips
Office of Plans and Policy
Federal Communications Commission
1919 M Street, N.W.
Room 822
Washington, DC 20554

*Gregory Rosston
Office of Plans and Policy
Federal Communications Commission
1919 M Street, N.W
Room 822
Washington, DC 20554

Barry Lambergman, Esq.
Manager, Satellite Regulatory Affairs
Motorola, Inc.
1350 I Street, N.W.
Suite 400
Washington, DC 20005

Philip L. Malet, Esq.
Alfred M. Mamlet, Esq.
Steptoe & Johnson
1330 Connecticut Avenue, N.W.
Washington, DC 20036-1795
Counsel for Motorola Satellite
Communications, Inc.

*By Hand Delivery

John P. Janka, Esq.
Latham & Watkins
1001 Pennsylvania Avenue, N.W.
Suite 1300
Washington, DC 20004-2505
Counsel for Hughes Communications
Galaxy, Inc.

Tom W. Davidson, Esq.
Akin Gump Strauss Hauer & Feld, L.L.P.
1333 New Hampshire Avenue, N.W.
Suite 400
Washington, DC 20036

Cristina M. Lirag

*By Hand Delivery